

Features of changes in the parameters of heart pumping function and excretion of catecholamines in primary school children when giving the oral answers at theoretical lessons

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Abstract

© 2016, International Journal of Pharmacy and Technology. All rights reserved. It was revealed for the first time that changes in the indices of cardiac pump function of the first graders during oral responses either at a desk or at the blackboard do not depend on the level of physical activity. During the subsequent years of study, the reaction of the heart pumping function of children subjected to enhanced motor activity decreases significantly when giving oral responses at the theoretical lessons. It was found that, from age to age, all children examined have a significant reduction in their stroke volume response when answering at a desk or standing at the blackboard. The reaction of the parameters of heart pumping function of first and fourth graders is slightly higher in boys than in girls. It was found for the first time that the reaction of the parameters of cardiac pumping function in the examined children is lower when answering at the blackboard. It was also revealed that the excretion of adrenaline and noradrenaline during oral responses in the first class does not depend on the level of physical activity. It was found for the first time that the children of control group have greater epinephrine excretion when giving oral answers both at the desk and at the blackboard, while the children with enhanced motor activity have greater excretion of norepinephrine.

Keywords

Epinephrine, Heart rate, Norepinephrine, Primary school children, Stroke volume response when giving answers at a desk and at the blackboard